

HUBUNGAN ASUPAN NATRIUM, KALIUM, KALSIUM DAN MAGNESIUM
DENGAN TEKanan DARAH SISTOLIK LANSIA WANITA (STUDI DI PANTI
WREDHA PUCANG GADING, SEMARANG, TAHUN 2007)

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Berdasarkan penelitian MONICA di Jawa Tengah Tahun 1996, prevalensi hipertensi pada wanita sebesar 15,8%. Faktor dietetik yang meliputi asupan natrium, kalium, kalsium, magnesium, serat dan lemak dapat mempengaruhi tekanan darah. Tujuan dari penelitian ini adalah untuk mengetahui hubungan asupan natrium, kalium, kalsium dan magnesium dengan tekanan darah sistolik Lansia wanita. Penelitian ini merupakan penelitian penjelas dengan metode survei dan pendekatan *cross sectional*. Sampel 52 orang adalah Lansia wanita yang tinggal di Panti Wredha Pucang Gading, Semarang yang dipilih secara *purposif* menggunakan kriteria inklusi dan eksklusi. Pengumpulan data asupan natrium, kalium, kalsium dan magnesium dengan metode penimbangan selama 2 hari yang berbeda. Tekanan darah sistolik diukur dengan menggunakan sphygmomanometer pada pagi hari sekitar pukul 09.00 WIB. Analisa data dilakukan dengan uji korelasi bivariat dan regresi linear berganda. Hasil penelitian menunjukkan semua Lansia mempunyai asupan natrium cukup (1300-2300 mg) dengan rerata $2008,2 \pm 19,2$ mg, asupan kalium kurang (<4700 mg) dengan rerata $999,6 \pm 424,9$, asupan kalsium kurang (800 mg) dengan rerata $220,4 \pm 71,0$ mg, asupan magnesium kurang (<300 mg) dengan rerata $198,8 \pm 35,9$ mg. Kejadian hipertensi sebanyak 20,4 %. Ada hubungan asupan natrium ($r=0,327$, $p=0,022$), kalium ($r=0,288$, $p=0,045$), lemak ($r=0,298$, $p=0,037$) dan serat ($r=0,296$, $p=0,039$) dengan tekanan darah sistolik. Tidak ada hubungan asupan kalsium ($r=0,233$, $p=0,108$) dan magnesium ($r=0,225$, $p=0,119$) dengan tekanan darah sistolik. Ada pengaruh asupan natrium ($B=0,36$, $p=0,022$) dengan tekanan darah sistolik setelah dikendalikan dengan asupan lemak. Tidak ada pengaruh asupan kalium ($B=0,002$, $p=0,787$) terhadap tekanan darah sistolik setelah dikendalikan dengan asupan lemak. Tidak adanya pengaruh kalium, kalsium dan magnesium terhadap tekanan darah sistolik dapat disebabkan karena terlalu rendahnya konsumsi makanan. Oleh karena itu sebaiknya disediakan makanan yang kaya akan mineral. Based on MONICA research in

Kata Kunci: natrium, kalium, kalsium, magnesium, tekanan darah sistolik dan Lansia wanita

THE ASSOCIATIONS BETWEEN INTAKE OF SODIUM, POTASSIUM, CALCIUM, MAGNESIUM AND SYSTOLE BLOOD PRESSURE ON ELDERLY WOMEN (A CASE STUDY IN PUCANG GADING NURSING HOME SEMARANG, IN 2007)

Central Java in 1996, the prevalence of hypertension among women was 15,8%. Blood pressure is influenced by dietetic factors, such as sodium, potassium, calcium, magnesium, fiber and fat intake. the aim of this study was to investigate the associations between intake of sodium, potassium, calcium, magnesium and systolic blood pressure on elderly women. The research was an explanatory study with survey method and cross

sectional approach. Fifty-two subjects were selected purposively using inclusion and exclusion criteria among elderly women who lived in Pucang Gading Nursing Home Semarang. data on mineral intake were collected by food weighing method for two days. Data on systolic blood pressure was obtained by examination using sphygmomanometer at about 09.00 AM. Data was analyzed by bivariate correlation test and multiple linear regression. The result of this research showed that all of elderly women have adequate intake of sodium (1300-2300 mg) with the average of $2008,2 \pm 19,2$ mg, had low intake of potassium (<4700 mg) with the average of $999,6 \pm 424,9$, had low intake of calcium (<800 mg) with the average intake of $220,4 \pm 71,0$ mg and had low intake of magnesium (<300 mg) with the average intake of $198,8 \pm 35,9$ mg. The incidence of hypertension was 20,4%. There were associations between sodium ($r=0,327$, $p=0,022$), potassium ($r=0,288$, $p=0,045$), fat ($r=0,298$, $p=0,037$) and fiber ($r=0,296$, $p=0,039$) intake and systolic blood pressure. There was no association between calcium ($r=0,233$, $p=0,108$) and magnesium ($r=0,225$, $p=0,119$) intake and systolic blood pressure. The influence of sodium intake on systolic blood pressure was still significant after adjustment by fat intake on systolic blood pressure ($B=0,36$, $p=0,022$). The influence of potassium intake on systolic blood pressure was not significant after adjustment by fat intake ($B=0,002$, $p=0,787$). The absence of the influence of potassium, calcium, and magnesium on systolic blood pressure of these elderly women may be caused by very low consumption of food. Therefore the food intake which is rich in these minerals should be provided.

Keyword : sodium, potassium, calcium, magnesium, systolic blood pressure and elderly women.